IN THE CLAIMS

Please amend the claims as follows:

1. (Currently amended) A polarized display, comprising:

an intensity modulating matrix display~~, said intensity modulating matrix display~~ having a front surface; and

a polarizing matrix display in front of ~~said~~ the intensity modulating matrix display, ~~said~~ the polarizing matrix ~~panel~~ display having a front surface;

wherein the polarized display is one of:

a linear polarization display, each pixel of ~~said~~ the polarizing matrix display ~~panel~~ being controllable and a rotation of a generated polarized light being varied over a range including 90 degrees and below; and

an elliptical polarization display, each pixel of ~~said~~ the polarizing matrix display ~~panel~~ being controllable and a phase between a fast and a slow axes of a polarized light coming from a corresponding pixel of ~~said~~ the intensity modulating matrix display in a range including 180 degrees and below, and

wherein the intensity modulating matrix display includes a backlight panel, a first polarizer, a first matrix display panel and a second polarizer, the polarizing matrix display including a second matrix display panel.

2. (Cancelled)

3. (Currently amended) The polarized display according to claim [[1]] 17, wherein ~~said~~ the polarizing matrix display ~~comprises~~ includes a front half-length retarder.

4. (Currently amended) The polarized display according to claim 3, wherein ~~said~~ the polarizing matrix display ~~comprises~~ includes a quarter-length retarder sheet in front of ~~said~~ the front half-length retarder, ~~said~~ the display being an elliptical polarization display.

5. (Currently amended) The polarized display according to claim [[1]] 17, wherein the polarized display is looked at with passive 3D glasses, yielding a stereoscopic screen.

6. (Currently amended) ~~The display according to claim 1,~~ A polarized display, comprising:

an intensity modulating matrix display having a front surface; and

a polarizing matrix display in front of the intensity modulating matrix display, the polarizing matrix display having a front surface;

wherein the polarized display is one of:

a linear polarization display, each pixel of the polarizing matrix display being controllable and a rotation of a generated polarized light being varied over a range including 90 degrees and below; and

an elliptical polarization display, each pixel of the polarizing matrix display being controllable and a phase between a fast and a slow axes of a polarized light coming from a corresponding pixel of the intensity modulating matrix display in a range including 180 degrees and below; and

wherein ~~said~~ the intensity modulating matrix display ~~comprises~~ includes a first LCD panel and ~~said~~ the polarizing matrix display ~~comprises~~ includes a second LCD panel, a first player wearing glasses with both eyes at a first polarized orientation and a second player wearing glasses at a second polarized orientation, yielding a two players-two displays-single screen-full screens display screen.

7. (Currently amended) The polarized display according to claim [[1]] 17, wherein ~~said~~ the intensity modulating matrix display ~~comprises~~ includes at least one of a first micro-lens arrays layer and gradient index lenses (GRIN), ~~said~~ the polarizing matrix display ~~comprising~~ including at least one of a first micro-lens arrays layer and gradient index lenses (GRIN).

8. (Currently amended) The polarized display according to claim [[1]] 17, wherein ~~said~~ the polarizing matrix display ~~comprises~~ includes one of a front diffuser and a front microballs diffuser.

9. (Currently amended) The polarized display according to claim 8, wherein ~~said~~ the polarizing matrix display ~~comprises~~ includes a microprism between the front surface thereof and ~~said~~ the front microballs diffuser.

10. (Currently amended) The polarized display according to claim [[1]] 17, wherein ~~said~~ the intensity modulating matrix display ~~comprises~~ includes a grating optical element in the front surface thereof.

11. (Currently amended) ~~The~~ A polarized display, comprising:

an intensity modulating matrix display having a front surface; and

a polarizing matrix display in front of the intensity modulating matrix display, the polarizing matrix display having a front surface;

wherein the polarized display is one of:

a linear polarization display, each pixel of the polarizing matrix display being controllable and a rotation of a generated polarized light being varied over a range including 90 degrees and below; and

an elliptical polarization display, each pixel of the polarizing matrix display being controllable and a phase between a fast and a slow axes of a polarized light coming from a corresponding pixel of the intensity modulating matrix display in a range including 180 degrees and below; and

wherein the polarized display ~~according to claim 1,~~ further ~~comprising~~ includes an image replicator layer provided between ~~said~~ the intensity modulating matrix display and ~~said~~ the polarizing matrix display ~~panel~~.

12. (Currently amended) The polarized display according to claim 11, wherein ~~said~~ the image replicator layer ~~comprises~~ includes at least one of a mini-Lens Arrays layer where arrays are selected to form a non-inverted 1:1 image projection, and Index (GRIN) lenses.

13. (Currently amended) The polarized display according to claim 11, wherein ~~said~~ the image replicator layer ~~comprises~~ includes at least one holographic optical elements device.

14. (Currently amended) The polarized display according to claim [[1]] 17, wherein ~~said~~ the intensity modulating matrix display and ~~said~~ the polarizing matrix display are integrated into one matrix display panel.

15. (Currently amended) The polarized display according to claim 14, wherein ~~said~~ the integrated matrix display panel ~~comprises~~ includes two active glass substrates and a thin sheet of liquid crystals between ~~said~~ the two substrates; ~~said~~ the thin sheet ~~comprising~~ including ~~an IPO~~ a conductive layer and a color filter and ~~said~~ the two active substrates and ~~said~~ the color filter being aligned.

16. (Currently amended) The polarized display according to claim 15, wherein ~~said~~ the two active substrates are about 7 mm thick, and the ~~said~~ thin sheet is less than about 2 mm thick.

17. (Currently amended) ~~The display according to claim 1,~~ A polarized display, comprising:

an intensity modulating matrix display having a front surface; and

a polarizing matrix display in front of the intensity modulating matrix display, the polarizing matrix display having a front surface;

wherein the polarized display is one of:

a linear polarization display, each pixel of the polarizing matrix display being controllable and a rotation of a generated polarized light being varied over a range including 90 degrees and below; and

an elliptical polarization display, each pixel of the polarizing matrix display being controllable and a phase between a fast and a slow axes of a polarized light coming from a corresponding pixel of the intensity modulating matrix display in a range including 180 degrees and below; and

wherein both ~~said~~ the intensity modulating matrix display and ~~said~~ the polarizing matrix display comprise LCD panels.

18. (Currently amended) ~~The display according to claim 1,~~ A polarized display, comprising:

an intensity modulating matrix display having a front surface; and

a polarizing matrix display in front of the intensity modulating matrix display, the polarizing matrix display having a front surface;

wherein the polarized display is one of:

a linear polarization display, each pixel of the polarizing matrix display being controllable and a rotation of a generated polarized light being varied over a range including 90 degrees and below; and

an elliptical polarization display, each pixel of the polarizing matrix display being controllable and a phase between a fast and a slow axes of a polarized light coming from a corresponding pixel of the intensity modulating matrix display in a range including 180 degrees and below; and

wherein each pixel is subdivided into sub-pixels controlling a red, a green and a blue intensity, ~~said~~ the intensity modulating matrix display and ~~said~~ the polarizing matrix display ~~panel~~ respectively converting each corresponding sub-pixel into modular and angular signals given in a Cartesian system of angles as follows:

$$Modulo = \sqrt{(left^2 + right^2)} \qquad (1)$$

$$Angular = Arc\tan\left(\frac{left}{right}\right) \qquad (2)$$

where left is a value of a sub-pixel of a first image with ~~the~~ a first linear polarization angle corresponding to a same sub-pixel on a second image with ~~the~~ a second linear polarization angle, and right is a value of a sub-pixel of the second image corresponding to a same sub-pixel on the first image.

19. (Currently amended) The polarized display according to claim 18, wherein the modular and angular signals are given in an oblique system of angle $\omega = \alpha + \beta$ by transformed modular and angular signals as follows:

$$Modulo' = \sqrt{(L^2\cos^2\theta + 2LR\cos(\omega+\theta) + R^2\cos^2(\omega+\theta))} \quad (9)$$

$$Angulo' = \arctan\left(\frac{L\cos\theta + R\cos(\omega+\theta)}{L\sin\theta + R\sin(\omega+\theta)}\right) \quad (10)$$

where $2\theta = (90^\circ - (\alpha + \beta))$, L is value of a sub-pixel of a first image with a first linear polarization angle β corresponding to a same sub-pixel on a second image with a second linear polarization angle α, and R is a value of a sub-pixel of the second image corresponding to a same sub-pixel on the first image.

20. (Currently amended) The polarized display according to claim 19, further comprising a first and a second linear polarized filters located side by side in a plane generally parallel to the front surface of the polarizing matrix display ~~panel~~, in front thereof; ~~said~~ the first linear polarized filter being at an angle A at 90 degrees from the first linear polarization angle β and ~~said~~ the second linear polarized filter being at an angle B at 90 degrees from the second linear polarization angle α, wherein the left and right values are recovered from ~~said~~ the transformed modular and angular signals with ~~said~~ the first and second filters at A and B angles as follows:

$$\sqrt{(L^2 + 4LR\cos\theta\sin\theta + R^2)} \bullet Cos\left(\arctan\left(\frac{L\sin\theta + R\cos\theta}{L\cos\theta + R\sin\theta}\right) + \theta\right) = left \bullet Cos(2\theta) \quad (11)$$

$$\sqrt{(L^2 + 4LR\cos\theta\sin\theta + R^2)} \bullet Sin\left(\arctan\left(\frac{L\sin\theta + R\cos\theta}{L\cos\theta + R\sin\theta}\right) - \theta\right) = right \bullet Cos(2\theta) \quad (12)$$

where $2\theta = (90^\circ - (\alpha + \beta)) = A - \alpha = B - \beta$.

21. (Currently amended) The polarized display according to claim 20, wherein ~~said~~ the filters are mounted on viewer spectacles.

22. (Currently amended) The polarized display according to claim 21, wherein ~~said~~ the viewer spectacles comprise a parasite elliptical light eliminator.

23. (Currently amended) The polarized display according to claim 18, further comprising:

a memory ~~means for~~ arrangement storing transformed signals.

24. (Currently amended) The polarized display according to claim 19, wherein each frame is toggled between two Modulo-Angular discrete signals to yield ~~obtain~~ an average thereof, thereby reducing cross talk between the first and second images.

25. (Currently amended) The polarized display according to claim [[2]] 1, wherein the display is further connected to a controller arrangement ~~means~~, ~~said~~ the controller arrangement ~~means~~ controlling an overdrive of at least one of ~~said~~ the first matrix display panel and ~~said~~ the second matrix display panel.

26. (Currently amended) The polarized display according to claim 18, wherein the display is further connected to a controller arrangement ~~means~~, ~~said~~ the controller arrangement ~~means~~ controlling delay of the modular and angular signals, wherein i) when a sub-pixel of the first image goes from dark to bright while a ~~second~~ corresponding pixel of the second image is dark, the ~~Modulo~~ modular signal is delayed relative to the angular signal; and ii) when the ~~first~~ sub-pixel of the first image goes from bright to dark while the ~~second~~ corresponding pixel of the second image is dark, the ~~Angular~~ angular signal is delayed relative to the ~~Modulo~~ modular signal.

27. (Currently amended). ~~The display according to claim 1,~~ A polarized display, comprising:

an intensity modulating matrix display having a front surface; and

a polarizing matrix display in front of the intensity modulating matrix display, the polarizing matrix display having a front surface;

wherein the polarized display is one of:

a linear polarization display, each pixel of the polarizing matrix display being controllable and a rotation of a generated polarized light being varied over a range including 90 degrees and below; and

an elliptical polarization display, each pixel of the polarizing matrix display being controllable and a phase between a fast and a slow axes of a polarized light coming from a corresponding pixel of the intensity modulating matrix display in a range including 180 degrees and below; and

wherein ~~said~~ the intensity modulating matrix display ~~comprises~~ includes a first LCD panel and ~~said~~ the polarizing matrix display ~~comprises~~ includes a second LCD panel, ~~said~~ the polarizing matrix display ~~panel comprising~~ including a filter sheet on the front surface thereof, yielding an enhanced 2D screen.

28. (Currently amended) ~~The display according to claim 1,~~ A polarized display, comprising:

an intensity modulating matrix display having a front surface; and

a polarizing matrix display in front of the intensity modulating matrix display, the polarizing matrix display having a front surface;

wherein the polarized display is one of:

a linear polarization display, each pixel of the polarizing matrix display being controllable and a rotation of a generated polarized light being varied over a range including 90 degrees and below; and

an elliptical polarization display, each pixel of the polarizing matrix display being controllable and a phase between a fast and a slow axes of a polarized light coming from a corresponding pixel of the intensity modulating matrix display in a range including 180 degrees and below; and

wherein ~~said~~ the intensity modulating matrix display ~~comprises~~ includes a first LCD panel and ~~said~~ the polarizing matrix display ~~comprises~~ includes a second LCD panel, ~~said~~ the polarized display being looked at with a non 3D type of polarized glasses, yielding an enhanced 2D screen.

29. (Currently amended) ~~The display according to claim 1,~~ A polarized display, comprising:

an intensity modulating matrix display having a front surface; and

a polarizing matrix display in front of the intensity modulating matrix display, the polarizing matrix display having a front surface;

wherein the polarized display is one of:

a linear polarization display, each pixel of the polarizing matrix display being controllable and a rotation of a generated polarized light being varied over a range including 90 degrees and below; and

an elliptical polarization display, each pixel of the polarizing matrix display being controllable and a phase between a fast and a slow axes of a polarized light coming from a corresponding pixel of the intensity modulating matrix display in a range including 180 degrees and below; and

wherein ~~said~~ the intensity modulating matrix display ~~comprises~~ includes a first LCD panel and ~~said~~ the polarizing matrix display ~~comprises~~ includes a second LCD panel, a private image being shown on the second LCD while a complete white image is displayed on the first LCD, whereby only a user wearing polarized glasses is able to see the private image, other people seeing only a white screen.

30. (Currently amended) ~~The display according to claim 1,~~ A polarized display, comprising:

an intensity modulating matrix display having a front surface; and

a polarizing matrix display in front of the intensity modulating matrix display, the polarizing matrix display having a front surface;

wherein the polarized display is one of:

a linear polarization display, each pixel of the polarizing matrix display being controllable and a rotation of a generated polarized light being varied over a range including 90 degrees and below; and

an elliptical polarization display, each pixel of the polarizing matrix display being controllable and a phase between a fast and a slow axes of a polarized light coming from

a corresponding pixel of the intensity modulating matrix display in a range including 180 degrees and below; and

wherein ~~said~~ the intensity modulating matrix display ~~comprises~~ includes a first LCD panel and ~~said~~ the polarizing matrix display ~~comprises~~ includes a second LCD panel, a private image being shown on the second LCD while a fake image is displayed on the first LCD, whereby only a user wearing polarized glasses is able to see the private image, other people seeing the fake image.

31. (Cancelled)